

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number  
**WO 2004/065212 A1**

(51) International Patent Classification<sup>7</sup>: **B64C 27/26**

(21) International Application Number:  
PCT/GB2004/000258

(22) International Filing Date: 22 January 2004 (22.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0301370.3 22 January 2003 (22.01.2003) GB

(71) Applicant (for all designated States except US): **THE SECRETARY OF STATE FOR DEFENCE** [GB/GB]; DSTL, Porton Down, Salisbury, Wiltshire SP4 0JQ (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SIMPSON, John** [GB/GB]; DSTL, Room 558, Metropole House, Northumberland Avenue, London WC2 5BP (GB).

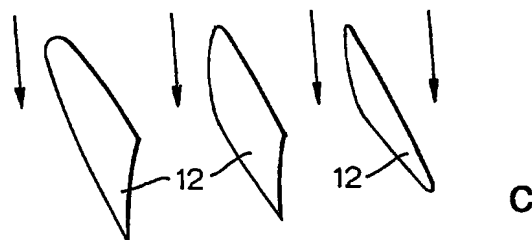
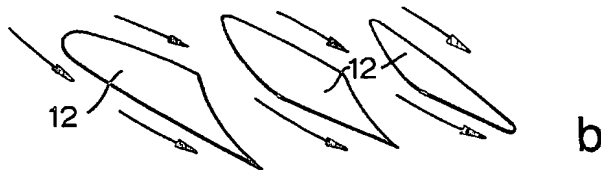
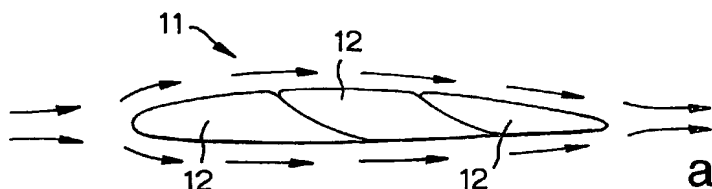
(74) Agents: **BECKHAM, Robert, William et al.**; D/IPR Formalities Section, Poplar 2, MOD Abbey Wood #2218, Bristol BS34 8JH (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,

[Continued on next page]

(54) Title: A WING FOR A COMPOUND HELICOPTER



(57) Abstract: A wing (11) for a compound helicopter having a lifting rotor comprises a plurality of wing elements (12) of which one wing element is rotatably mounted and in one position thereof the wing elements form a single continuous aerofoil. In a preferred embodiment the wing comprises a plurality of rotatably mounted wing elements. Each rotatable wing element is rotated by rotating means so as to tend to reduce resistance to the downward airflow generated by the rotor when the helicopter is in vertical take off-landing mode.



GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments*

**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*